

## REMARKS

### Amendments

Support for the amendment of Figure 1 can be found in the text accompanying Figure 1 (e.g., page 3, line 20). The amendment to Figure 1 was made to conform the Figure 1 to the specification. No new matter is added.

Amendments to the specification were made to correct typographical errors. No new matter is added.

Support for the amendments to the claims made herein can be found at least at Figures 1-4 and accompanying text. No new matter is added.

### Rejection Under 35 U.S.C. §102(e)

The Examiner rejected Claims 1, 2, 8, 9, 11, 12, 18, 19, 21, and 22 under 35 U.S.C. 102(e) as being anticipated by Sugai (U.S. Patent No. 6,683,885) (hereafter "Sugai").

Claim 1 recites "transmitting the stored protocol headers and application data and a selected MAC header across a network, wherein the transmitting includes selectively retrieving the selected MAC header from the cache or the host memory based, in part, on whether the selected MAC header was previously transmitted" (emphasis added).

Claim 8 recites "said network adapter being operative to transmit both the stored protocol headers and application data passed by the DMA controller and a selected MAC header across a network, wherein said network adapter selectively retrieves the selected MAC header from the cache or the host memory based, in part, on whether the selected MAC header has been previously transmitted" (emphasis added).

Claim 11 recites "transmitting the stored protocol headers and application data and a selected MAC header across a network, wherein the selected MAC header is selectively retrieved from the cache or the host memory based, in part, on whether the selected MAC header has been previously transmitted" (emphasis added).

Claim 18 recites "said network adapter having means for transmitting both the protocol headers and application data passed by the DMA controller and a selected MAC header across a network, wherein the transmitting includes selectively retrieving the selected

MAC header from the cache or the host memory based on, in part, whether the selected MAC header has been previously transmitted" (emphasis added).

Claim 21 recites "a network controller having a cache to store a at least one MAC header, said network controller transmitting the stored protocol header and application data and a selected MAC header across a network, wherein the transmitting includes selectively retrieving the selected MAC header from the cache or the host memory based, in part, on whether the selected MAC header has been previously transmitted" (emphasis added).

Referring to FIG. 6, with respect to headers, Sugai discloses:

transfer engine 13 receives a packet from the network interface 30. The packet buffer 12 has stored therein an input packet or a packet of the internal packet format with the internal header added thereto. Also, the internal header 405 is added to the layer-2 MAC header 401 and the layer-3 IP header 402 of the input packet to form the header information, which is stored in the RAM 11. The header RAM 11 can be read from and written into at high speed independently of the packet buffer 12, and by storing only the header information therein, the storage capacity can be reduced for further increasing the processing rate. The search engine 14 can access the extracted header information at appropriate timing.

Then, in the input search process 2, the search engine 14 extracts the destination IP address in the layer-3 IP header 402 from the header information, and based on this address, refers to the route table 15 to search for the IP address 502 of the next router, the transmission RP number 503 of the local router and the transmission port number 504.

Then, in the output search process 3, the search engine 14 extracts the IP address of the next router determined in the input search process 2, and based on this address, searches for the MAC address 506 of the next router with reference to the ARP table 16

Then, in the transmission process 4, the header information including the transfer control information searched in the output search process 3 is read from the header RAM 11, and based on the header information and the packet buffer 12, an output packet is produced and set in queue for the buffer of the network interface 30. (Col. 8, line 5 to col. 8, line 52) (emphasis added).

Clearly, Sugai does not teach the cited portions of Claims 1, 8, 11, 18, and 21. Claims 2, 9, 12, 19, and 22 depend from base claims 1, 8, 11, 18, and 21 and are allowable for at least the same reasons as pertain to claims 1, 8, 11, 18, and 21.

Rejection Under 35 U.S.C. §103(a)

The Examiner rejected Claims 3, 6, 7, 10, 13, 16, 17, 20, and 23 under 35 U.S.C. 103(a) as being unpatentable over Sugai in view of Richman et al. (U.S. Patent No. 6,336,152) (hereafter "Richman").

The Examiner rejected Claims 4, 5, 14, 15, and 24 under 35 U.S.C. 103(a) as being unpatentable over Sugai in view of Richman and in further view of Spencer et al. (U.S. Patent No. 6,772,295) (hereafter "Spencer").

Separately and in combination, Richman and Spencer fail to cure the deficiencies of Sugai stated earlier.

Claims 3-7, 10, 13-17, 20, 23, and 24 depend from base claims 1, 8, 11, 18, and 21 and are allowable for at least the same reasons as pertain to claims 1, 8, 11, 18, and 21.

New Claims

Claims 25-29 are newly added. No new matter is added. Support can be found in the specification at least at Figures 1-4 and accompanying text. New Claims 25-29 are allowable for at least the same reasons as pertain to base Claims 1, 8, 11, 18, and 21.

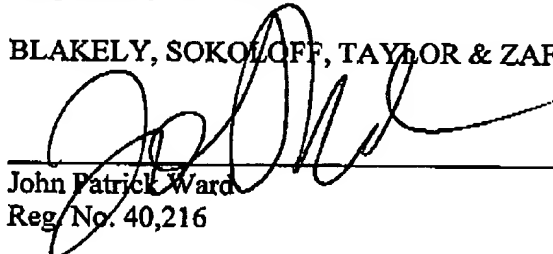
Accordingly, applicant respectfully requests the Examiner to allow pending Claims 1-29. If the Examiner has any questions concerning this application, please call the applicant's attorney Glen Choi at (212) 661-5488.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

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